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BEFORE THE

Federal Communications Commission

WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Petition for Rule Making To Revise Part 25 of the Commission's Rules to Permit Blanket Licensing Of Satellite Earth Stations Operating in the 18 GHz and 28 GHz Bands and Sharing Between Fixed Services and Satellite Services in the 18 GHz Band	)	**RM No. 9005**

To: The Commission

COMMENTS OF THE AMERICAN PETROLEUM INSTITUTE

The American Petroleum Institute ("API"), pursuant to Section 1.405 of the Rules and Regulations of the Federal Communications Commission ("Commission"), by its attorneys, hereby respectfully submits these Comments regarding the Petition for Rule Making ("Petition") filed with the Commission on December 23, 1996 by Lockheed Martin Corporation, Hughes Communications, Inc., Loral Space & Communications, Ltd., and GE American Communications, Inc. ("Petitioners").

I. PRELIMINARY STATEMENT

1. API is a national trade association representing approximately 300 companies involved in all phases of the petroleum and natural gas industries, including exploration, production, refining, marketing, and transportation of petroleum, petroleum products and natural gas. Among its many activities, API acts on behalf of its members as spokesperson before federal and state regulatory agencies. The API Telecommunications Committee is one of the standing committees of the organization's Information Systems Committee. One of the Telecommunications Committee's primary functions is to evaluate and develop responses to state and federal proposals affecting telecommunications services and facilities used in the oil and gas industries. Consistent with that mission, it also reviews and comments, where appropriate, on other proposals that impinge on the ability of the energy industries to meet their telecommunications needs.

2. The API membership is particularly interested in this proceeding because at least nineteen of API's members hold licenses with links authorized in the 18 GHz band. Many of these licensees have multiple links in the 18 GHz band.

II. THE PETITION

3. The Petitioners requested the FCC to revise Part 25 of its rules by providing for the routine licensing of large numbers of Geostationary Orbit Fixed Satellite Service ("GSO FSS") earth stations operating in the bands 19.7-20.2 GHz, 28.35-28.6 GHz, and 29.5-30.0 GHz. The Petitioners also requested the FCC to address the potential for sharing between FSS earth stations and FS stations operating in the band 17.7-18.8 GHz. In response to this Petition, Teledesic, Inc., a Non-Geostationary Orbit Fixed Satellite Service ("NGSO FSS") entity, filed Comments that urged the Commission to expand this proposal by considering the routine, uncoordinated licensing of NGSO FSS earth stations in the band 17.7-18.8 GHz occupied by Fixed Services users, including API members.

4. On August 21, 1997, counsel for API attended a meeting that was called by the FCC's Wireless Telecommunications Bureau to explore the potential for sharing the 18 GHz band between FS users and uncoordinated FSS earth stations. At that meeting, API and the other FS user representatives expressed their stern opposition to Teledesic's proposal. API and others present welcomed the opportunity to submit formal Comments in response to this ill-conceived proposal for blanket licensing. On September 5, 1997, the Commission issued a Public Notice inviting Comments from the

FS community.[1/] API appreciates the opportunity to provide its views on this important matter.

III. COMMENTS

A. The 18 GHz Band Should Be Preserved as Replacement Spectrum

5. API members would be significantly affected by blanket licensing of FSS earth stations in the 18 GHz band because this very same spectrum is utilized by numerous API members for short-haul microwave communications. These communications are fixed, point-to-point transmissions that frequently serve as spurs off of long-haul microwave systems. Thus, a pipeline that utilizes a 2 GHz or 6 GHz microwave path for its long-haul transmissions, may employ 18 GHz links from the pipeline to a field office, refinery, central production facility, or city gate. As a result, these 18 GHz spurs form an integral part of the overall production, refining and transportation process and are involved in every phase of that process from extraction through processing to the actual delivery of petroleum or natural gas to the consumer. Moreover, in times of crisis, these communications facilities play a vital role in alerting public safety officials, in coordinating response activities, and in minimizing the impact of emergencies upon workers and the general public.

[1/] Public Notice, IN Report No. 97-27, released September 5, 1997.

6. Because of the fundamental involvement of communications in every phase of petroleum and natural gas production, refining and transportation, it is difficult to quantify the importance of these 18 GHz facilities in monetary terms. The unquantifiable value of these systems is exemplified by the significant public safety attributes of these petroleum and natural gas communications systems. For example, if a pipeline is operating at an excessive level of pressure at one point along the pipeline, the communications systems operated by API members in the 18 GHz band are capable of monitoring this level, detecting abnormalities, and responding by remotely controlling the valve system throughout tens of thousands of miles of pipeline in this nation. Information from Supervisory Control and Data Acquisition ("SCADA") systems, common throughout the industry, is transmitted over these microwave systems. Without this reliable information, the likelihood of pipeline ruptures, with their attendant health and environmental consequences, would be increased dramatically. A growing number of these 18 GHz links have replaced facilities previously operated in the 1.8 GHz and 2.1 GHz bands, which have been reallocated for Emerging Technologies, including PCS and MSS.

7. As a result of these reallocations, the Commission has identified the 6 GHz band and the 18 GHz band as relocation spectrum for relocated FS users. However, the 6 GHz spectrum is rapidly becoming congested, as both Common Carrier and Private Operational-Fixed Microwave Service users flock to this relocation spectrum.

Because the 6 GHz band offers more favorable propagation characteristics than the 18 GHz band, it is less expensive and less difficult to build a replacement microwave system in the 6 GHz band than in the 18 GHz band. For example, a 2 GHz microwave link that covers a distance of 25 miles would have two towers, one at each end of the link. To cover that same 25-mile distance, a 6 GHz system might require three towers, whereas an 18 GHz system could require four or more towers. With an average cost of $250,000 or more per tower, it is easy to see why the 6 GHz band is quickly filling up with replaced incumbents. Soon, however, there will be insufficient 6 GHz spectrum left, particularly in those urban and industrial areas where PCS entities first relocated incumbents. As a result, when the remaining PCS licensees build out their systems, and when the MSS industry seeks to relocate 2.1 GHz incumbents, the only available relocation spectrum will be in the 18 GHz band for most of the nation. Thus, it is vitally important that the Commission *not* permit further incursion into the 18 GHz band by services other than FS users.

8. It is in the Commission's own interest to preserve relocation spectrum. A large part of the success of auctions depends upon the ability of auction winners to build out their systems. This success, in turn, is directly tied to the availability of replacement spectrum for fixed users. In order to help guard against the default of PCS companies, the Commission should ensure their ability to relocate incumbents to unfettered spectrum. In addition, if the Commission wishes to successfully auction MSS licenses, it will need

to convince potential bidders that replacement spectrum exists for incumbents. Otherwise, the level of bidding and the interest in those licenses will be diminished.

B. There Is No Such Thing As "Sharing" Between a Coordinated Fixed Service and an Uncoordinated Satellite Service

9. The FCC's rules now require customers of 18 GHz satellite providers to separately license their earth station terminals; in this way, end users must obtain prior coordination and thereby guard against interfering with FS licensees and other satellite users. Under Teledesic's proposal, however, this separate coordination and licensing procedure would be eliminated. The effect of this rule change would be to permit any consumer to purchase a Teledesic or other satellite earth station and utilize that earth station in the 18 GHz band at any location within the United States.

10. From API's viewpoint, the concept that "sharing" could work in such a situation is ludicrous. It is capricious for Teledesic to propose that this nation's vital petroleum and natural gas industries, its railroads, its utilities, and its public safety services could operate responsibly in such an environment. If Teledesic's proposal were adopted, anyone could purchase an earth station at a local retail store and operate that terminal anywhere at any time. The interference which would occur to FS systems in such a situation would be simply intolerable for FS licensees. However, with millions of

earth stations in the hands of consumers, it would be the incumbent FS providers that would be forced to relocate from the 18 GHz band -- not the Teledesic subscribers.

11. The end result of such an arrangement would not be spectrum sharing at all, it would be forced, and uncompensated relocation of FS users from the 18 GHz band. In fact, the very idea that an uncoordinated, mass market electronics device such as a garage door opener, a microwave oven, or in this case, a Teledesic handset, could cohabit with coordinated, individually-tailored public safety protection communications used to monitor and operate a petroleum pipeline is contrary to common sense. API appeals to the Commission's sense of fair play: if the FSS community is going to be permitted to flood the 18 GHz band with hundreds of thousands of uncoordinated handheld units, it should at least be required to first relocate incumbents to comparable spectrum elsewhere, rather than operate under the guise of "sharing" the spectrum with incumbents. By requiring FSS operators to admit that sharing can never work when it involves a ubiquitous consumer device, the FCC would be avoiding the charade of engineering studies and protracted legal trysts which have complicated and unnecessarily delayed the 2.1 GHz MSS proceeding in ET Docket No. 95-18. The Commission would also be treating incumbents in an equitable manner.

WHEREFORE, THE PREMISES CONSIDERED, the American Petroleum Institute respectfully submits the foregoing Comments and requests the Commission to act in a manner consistent with these views.

Respectfully submitted,

AMERICAN PETROLEUM INSTITUTE

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Dated: September 24, 1997

CERTIFICATE OF SERVICE

I, Patt Meyer, a secretary in the law firm of Keller and Heckman LLP, do hereby certify that the foregoing COMMENTS have been served this 24th day of September, 1997, by mailing U.S. First-Class, postage prepaid, or by hand delivery, to the following:

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